

Subpart D - Walking & Working Surfaces



HOUR 2 - OSHA

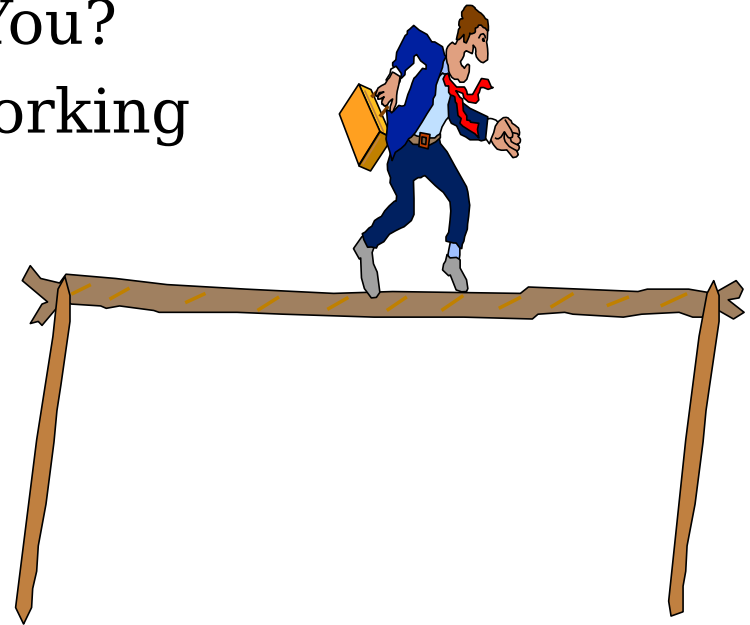
Standards &

Walking/Working Surfaces

- Where Do OSHA Standards Come From?

- What is CFR 1910?
- What Should It Mean To You?
- **Subpart D:** Walking & Working Surfaces:

- Housekeeping
- Guards
- Stairways/Ladders
- Other Surfaces



Subpart D - Walking- Working Surfaces

1910.21	Definitions
1910.22	General Requirements
1910.24	Fixed Industrial Stairs
1910.25	Portable Wood Ladders
1910.27	Fixed Ladders
1910.30	Other Working Surfaces
1910.32	Standards Organizations

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- Slips, trips & falls constitute the majority of general industry accidents
- Cause 15% of all accidental deaths
- Second only to motor vehicles as cause of fatalities



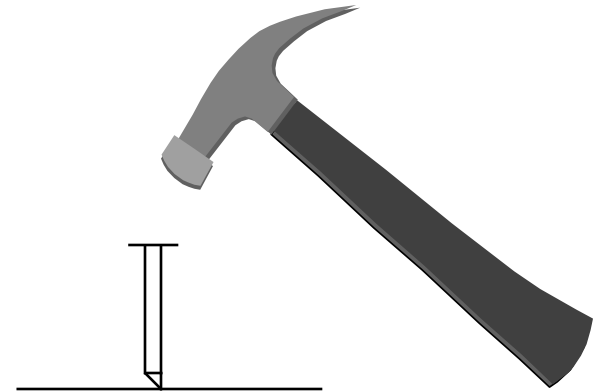
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- OSHA 1910.22 applies to all permanent places of employment, except:
 - domestic,
 - mining,
 - or agricultural work is only performed.

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Housekeeping - most cited violations

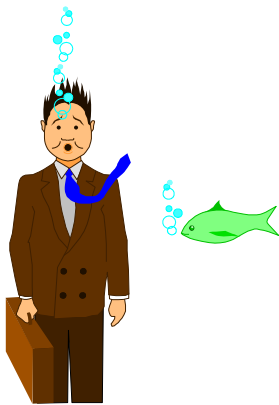
- All places of employment - passageways, storerooms, and service rooms shall be kept clean & orderly and in a sanitary condition



- Every floor, working place and passageway shall be kept free from protruding nails, splinters, holes, or loose boards

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- The floor of every workroom shall be maintained in a clean and, so far as possible, dry condition



Housekeeping - most cited violations

- Where wet processes are used, drainage shall be maintained and gratings, mats, or raised platforms shall be provided.

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Aisles & Passageways

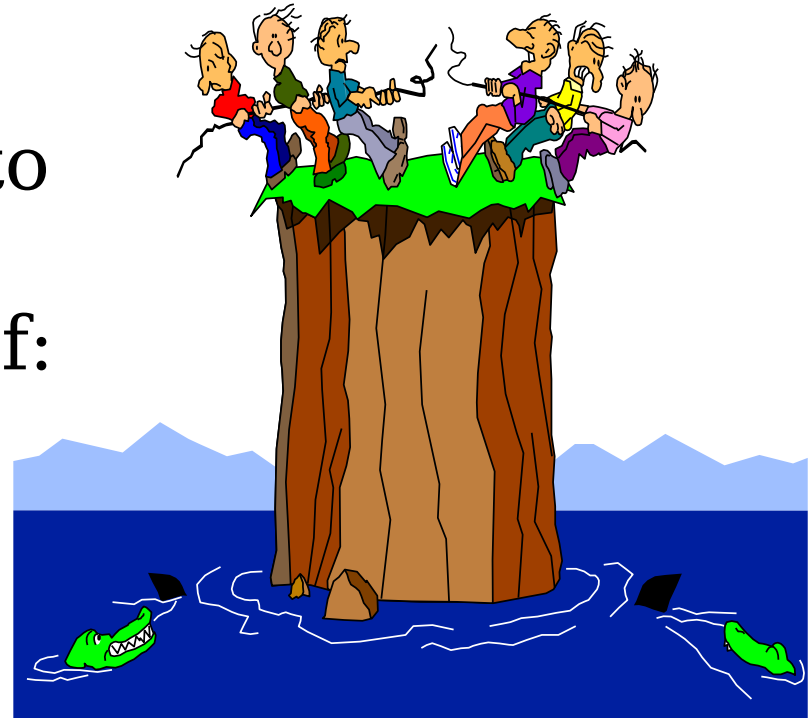


- Shall be kept clear & in good repair
- Have no obstruction across or in aisles that could create a hazard
- Shall be sufficiently wide for mechanical handling equipment (where used)

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Covers & Guardrails

- Shall be provided to protect personnel from the hazards of:
 - open pits
 - tanks
 - vats
 - ditches, etc.

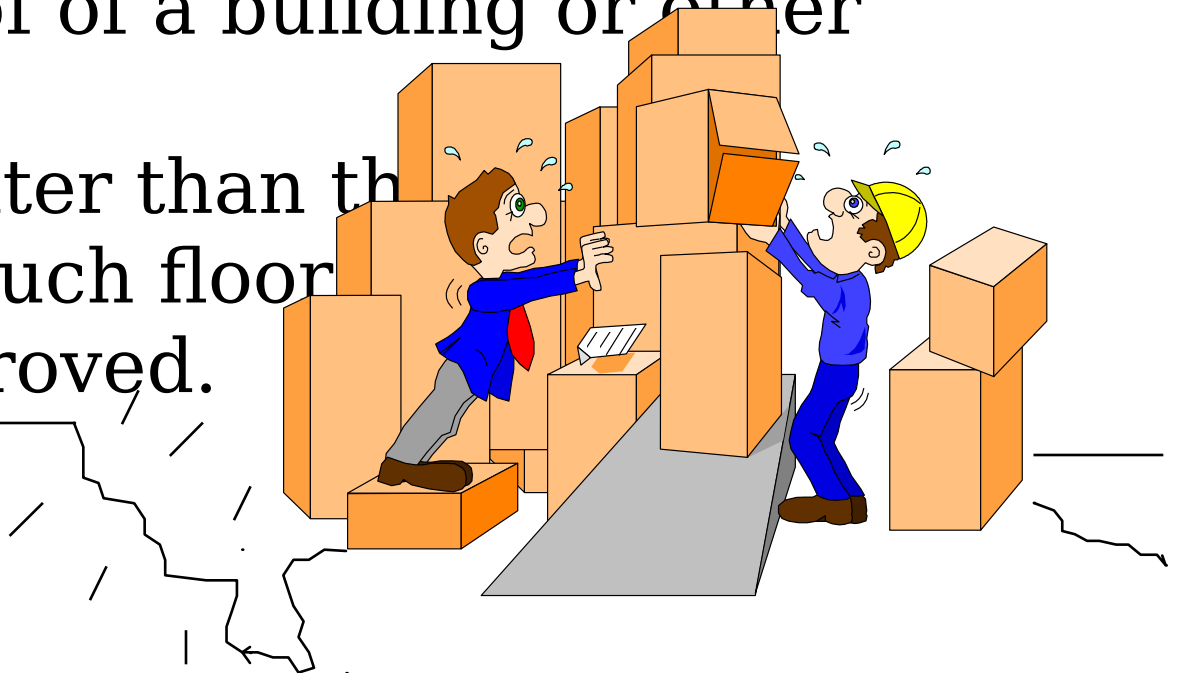


Subpart D - Walking & Working **Surfaces**

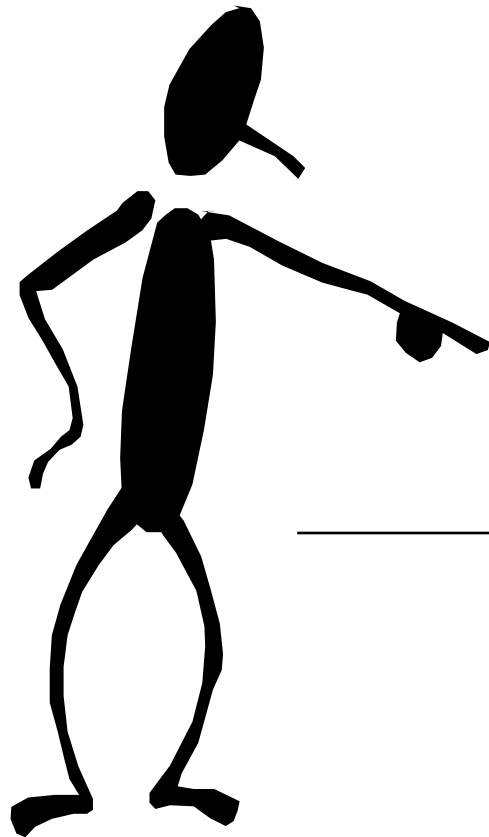
Floor Loading Protection

It shall be unlawful to place, or cause, or permit to be placed, on any floor or roof of a building or other structure,

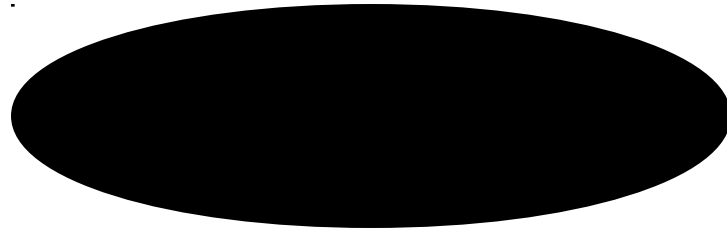
a load greater than that for which such floor or roof is approved.



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Floor openings and holes, and the open sides of platforms may create hazards. OSHA standards for guarding openings and holes are:



Guarding Floor & Wall Openings & Holes - 1910.23

- Guard:
 - Floor, platform, pavement or yard holes with an opening less than 12 inches - but more than 1 inch in its least dimension (1910.23(a)(9))
 - Floor openings measuring 12 inches or more (in its least dimension) in any floor, platform, pavement or yard (1910.21(a)(2) & 1910.23(a)(8))

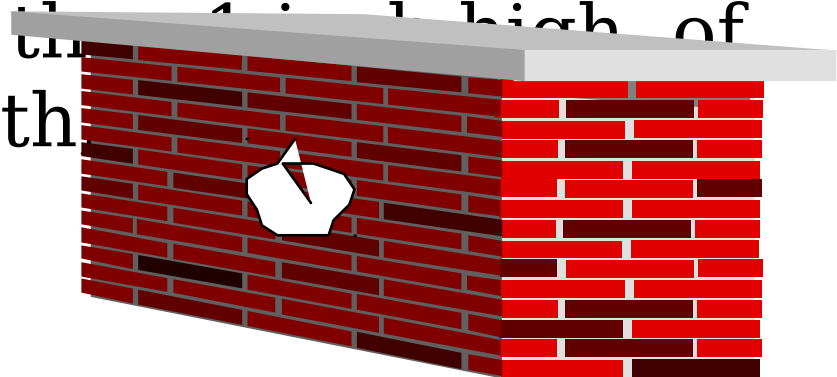
Guarding Floor & Wall

Openings & Holes - 1910.23

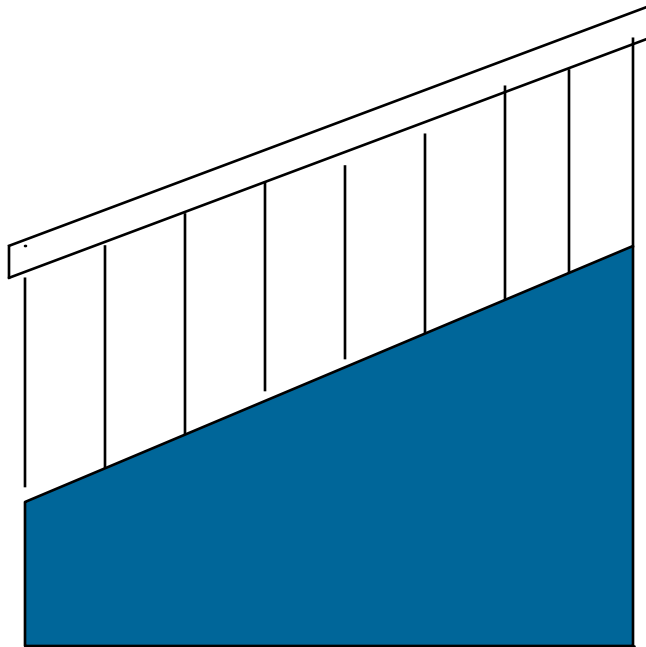
- Guard:
 - Platforms elevated 4 feet or more above the surrounding floor or ground by a standard railing on all open sides except the entrance to a ramp, stairway or fixed ladder (1910.23(c)(1))
 - Pit and trapdoor floor openings (1910.23(a)(5))
 - Temporary floor openings (1910.23(a)(7))

Guarding Floor & Wall **Openings & Holes - 1910.23**

- Wall opening: An opening at least 30 inches high and 18 inches wide, in any wall or partition, through which persons may fall
- Wall hole: An opening less than 30 inches but more than 18 inches high, of unrestricted width in any wall or partition



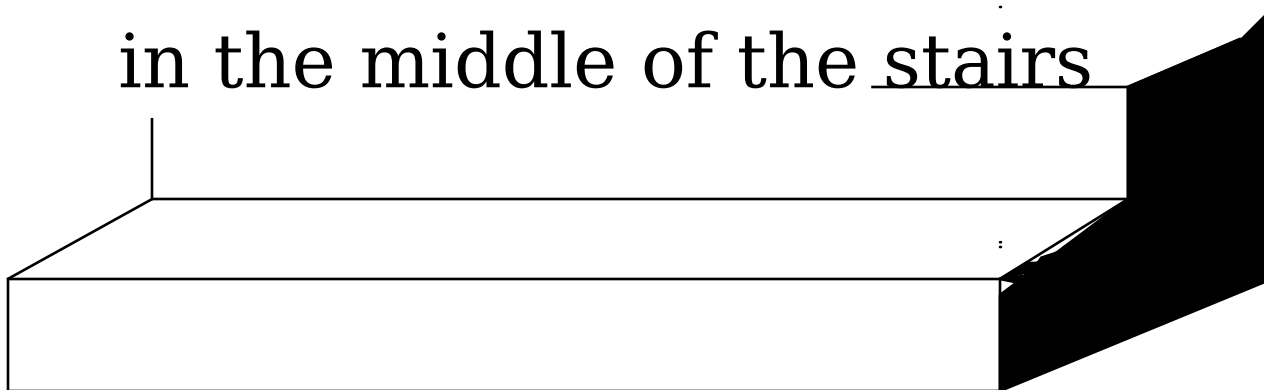
Stairway Railings & Guards



- Every flight of stairs with 4 or more risers shall have standard stair railings or handrails
- Stairways less than 44 inches wide with 1 open side: 1 stair rail
- 2 open sides: 2 rails (one for each side)

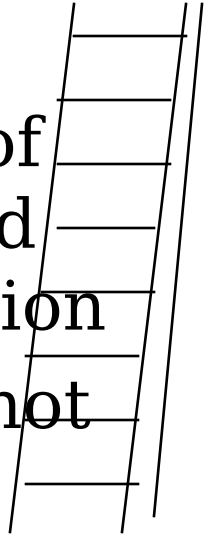
Stairway Railings & Guards

- Stairways more than 44 inches wide, but less than 88 inches: 1 handrail on each enclosed side and one stair rail on each open side
- Stairways 88 inches or more in width: 1 handrail on each enclosed side, one stair rail on each open side, and one intermediate stair rail placed approximately in the middle of the stairs



Portable Ladders - 1910.25 & 26

- Portable stepladders longer than 20 feet shall not be used
- Stepladders shall have a locking device of sufficient size & strength to securely hold the front and back sections in open position
- Single ladders longer than 30 feet shall not be used
- Extension ladders longer than 60 feet shall not be used



Safety Precautions for Ladder Usage

- Place ladders with a secure footing
- Ladders used to gain access to a roof shall extend at least 3 feet above the point of support
- Workers shall always *face* the ladder when climbing up or down
- Short ladders shall not be spliced together to make long ladders
- Never use ladders in a horizontal position as scaffolds or work platforms

Safety Precautions for Ladder Usage

- Never use the top of a regular stepladder as a step
- Use both hands when climbing or descending ladders
- Metal ladders shall never be used near electrical equipment

Fixed Ladders - 1910.27

- Definition: A ladder permanently attached to a structure, building or equipment

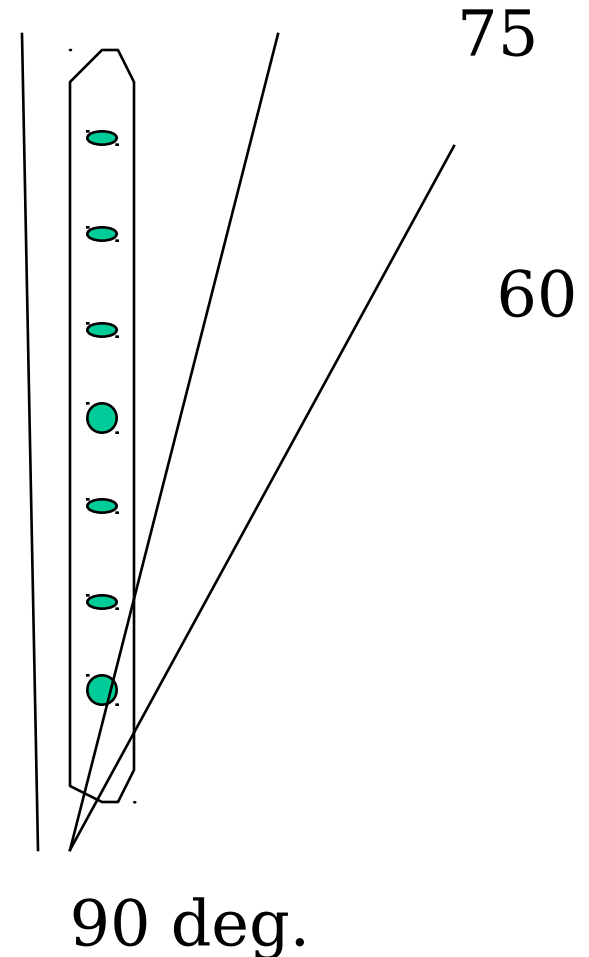
A “cage” is a guard that is fastened to the side rails of the fixed ladder or to the structure to encircle the climbing space of the ladder for the safety of the person climbing the ladder

Fixed Ladders - 1910.27

- Fixed ladders with a length of more than 20 feet to a maximum unbroken length of 30 feet shall be equipped with cages or a ladder safety device
- Cages shall extend a minimum of 42 inches above the top of a landing, unless other acceptable protection is provided
- Cages shall extend down the ladder to a point not less than 7 feet - nor more than 8 feet - above the base of the ladder

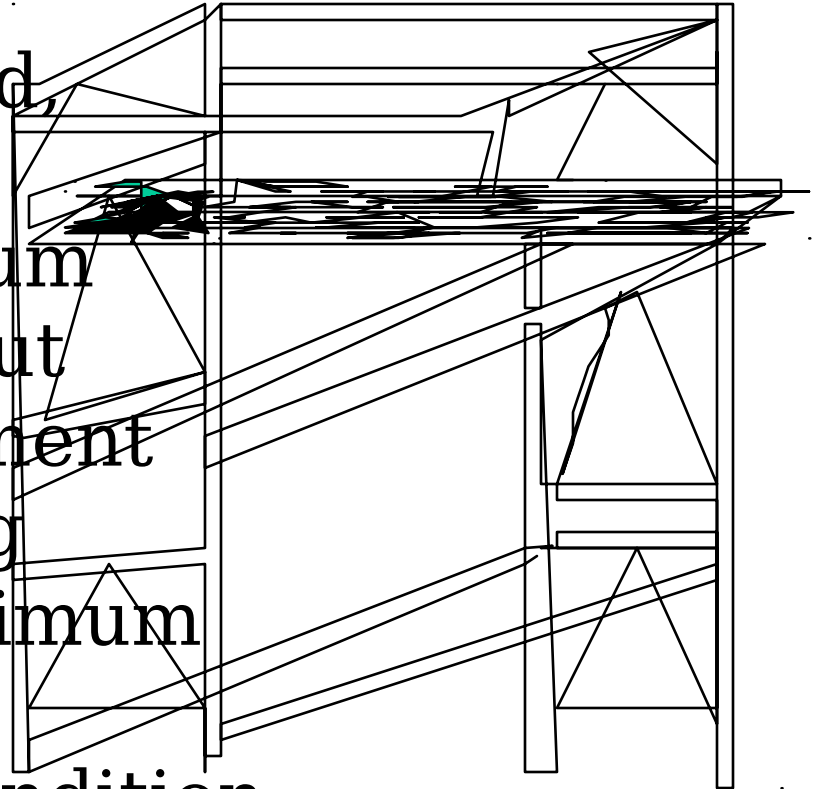
Fixed Ladders - 1910.27

- The preferred pitch of fixed ladders is between 75-90 degrees deg.
- Fixed ladders are considered substandard if installed with deg a pitch range of 60-75 degrees
- Ladders with a pitch in excess of 90 degrees with the horizontal are prohibited



Scaffolding - 1910.28

- Footing shall be sound, rigid and capable of carrying the maximum intended load without settling or displacement
- Capable of supporting at least 4 X the maximum intended load
- Maintained in safe condition
- Shall not be altered or moved horizontally w



Scaffolding - 1910.28

- Damaged or weakened scaffolds shall be immediately repaired and shall not be used until repairs have been completed
- Safe means must be provided to gain access to the working platform (ladder, ramp, etc.)
- Overhead protection must be provided for personnel exposed to overhead hazards
- Guardrails, midrails and toeboards must be installed on all open sides and ends of platforms more than 10 feet above the ground or floor

Scaffolding - 1910.28

- Employees shall not work on scaffolds during storms or high winds or when covered with ice or snow

There are many types of scaffolds. Those who use them must read 1910.28 carefully to determine the safety requirements of each type.

Other Working Surfaces - 1910.30



- Portable dockboards (bridge plates) shall be secured in position
- Failure to secure dockboards can cause forklift accidents, falls, etc.

HOUR 2 QUIZ

guardrails will be

1. All of the following statements about **Consensus Standards** are true, except:

- a. Developed by industry organizations.
- b. Agreed upon through industry consensus.

c. Result of standards developed by above
the American Society for Quality Control (ASQC) and the National Fire Protection Association (NFPA).
stairs with _____ or
have standard stair

handrails.

2. 29 CFR 1910 is recognized by the Army to apply within Army installations.

True _____ False _____

3. The requirements of OSHA 1910.22 exact number

apply to all permanent places of employment except:

- a. Small Business
- b. Domestic

4. Covers and

provided for:

- a. Open pits
- b. Tanks
- c. Vats
- d. Ditches
- e. All of the

5. Every flight of
more risers shall

railings and

- a. 6
- b. 5
- c. 8
- d. 4
- e. There is no

required.

Hour 2 Quiz - Answers

- 1. C. Consensus Standards are the result of standards developed by the American National Standards Institute (ANSI) and the NFPA.
- 2. True.
- 3. B.
- 4. E.
- 5. D.